



AMENDMENTS TO THE DRAWINGS:

Please amend FIG. 17A-C as shown in the enclosed marked-up copy labeled “Annotated Marked-up Drawings”, wherein the changes of “CRYCBB2” to --CRY3BB2-- in two places in FIG. 17A; “CRYS3BB2” to --CRY3BB2-- in FIG. 17B; and the additions of --(SEQ ID NO:109)--, --(SEQ ID NO:110)--, --(SEQ ID NO:111)--, --(SEQ ID NO:112)-- and --(SEQ ID NO:113)-- at the end of the sequences for CRY3C, CRY3BB2, CRY3BB, CRY3BA, and CRY3A, respectively, in FIG. 17C are shown in red. A replacement copy of FIG. 17A-C labeled “Replacement Sheet” is also provided as an appendix to this amendment.

replacement pages 2 of 10, 3 of 10, and 7 of 10 to substitute for pages 2 of 10, 3 of 10, and 7 of 10 of the previous Response filed May 9, 2005.

REMARKS

This paper is filed in response to the Notice of Non-Compliant Amendment. It is believed that the response is filed timely and no fees are due at this time. However, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to the enclosed materials, the Commissioner is authorized to deduct said fees from Deposit Account No. 01-2508/11792.0218.DVUS01.

Respectfully submitted,



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REMARKS

Claim Status

The active claims in this case are claims 38-46. Each of claims 38 and 39 is amended to replace “comprising” with --wherein the method comprises-- as helpfully suggested by the Examiner. Claims 34, 36 and 37 are cancelled. As noted by the Examiner the amendments to claim 34 in the preliminary amendment dated 7 July 2003 were not properly marked. Applicants have therefore cancelled claim 34 (and dependant claims 36 and 37) and rewritten them as new claims 44-46. Claims 41-43 have been amended to recite “said gene encoding said modified Cry3Bb* polypeptide”. No new matter has been introduced into the claims.

Amendments to the Drawings and Specification

FIG. 17A-C and the specification at page 58, lines 1-6 have been amended to add sequence identifiers to the corresponding sequences that are referenced therein to fully comply with the sequence rules. Furthermore, FIG. 17A-C has been amended to correct a couple of typographic errors. No new matter is introduced.

Objections to Claims 34 and 38-39

Claim 34 was objected for the term “comprising”. In response, new claim 44 (which replaces claim 34) has been amended to include the phrase “wherein the method comprises” as helpfully suggested by the Examiner. Similarly, claims 38-39 were objected for the term “comprising”. In response, claims 38-39 have been amended to include the phrase “wherein the method comprises” as helpfully suggested by the Examiner.

Response to Office Action
10/614,076

ALIGNMENT OF CRY3 SEQUENCES

(Numbered according to Cry3BB)

(alpha helices underlined, beta sheets marked with + + +'s)

	1	10	20	30	40
CRY3C:	MNPNNRSEHDTIKATENNEVSNNHAQYPLADTP	- -	TLEELNY		
<i>CRY3BB2</i> CRYCBB2 :	MNPNNRSEHDTIKVTPNSELPTNHNQYPLADNP	NPSTLEELNY			
CRY3BB:	MNPNNRSEHDTIKVTPNSELQTNHNQYPLADNP	NPSTLEELNY			
CRY3BA:	MIRMGGRKMNPNNRSEYDTIKVTPNSELPTNHNQYPLADNP	NPSTLEELNY			
CRY3A:	MIRKGGRKMNPNNRSEHDTIKTTENNEVPTNHVQYPLAETPNPTLED	LN			
	50	60	70	80	90
CRY3C:	KEFLRRTTDNNVEALDSSTTKDAIQKGISIIGDLLGVVGF	FPYGGALVSFY			
<i>CRY3BB2</i> CRYCBB2 :	KEFLRMTEDSSTEVLN	STVKDAVGTGISVVGQILGVVGVPFAGALTSFY			
CRY3BB:	KEFLRMTEDSSTEVLN	STVKDAVGTGISVVGQILGVVGVPFAGALTSFY			
CRY3BA:	KEFLRMTADNSTEVLDSSTVKDAVGTGISVVGQILGVVGVPFAGALTSFY				
CRY3A:	KEFLRMTADNTEALDSSTTKDVIQKGISVVGDLLGVVGF	FPFGGALVSFY			
	100	110	120	130	140
CRY3C:	TNLLNTIWPGE-DPLKAFMQQVEALIDQKIADYAKDKATAELQGLKNVFK				
CRY3BB2:	QSFLDTIWPSDADPWKAFMAQVEVLIDKKIEEYAKSKALAE	LQGLQNNFE			
CRY3BB:	QSFLNTIWPSDADPWKAFMAQVEVLIDKKIEEYAKSKALAE	LQGLQNNFE			
CRY3BA:	QSFLNAIWPSDADPWKAFMAQVEVLIDKKIEEYAKSKALAE	LQGLQNNFE			
CRY3A:	TNFLNTIWPSE-DPWKAFMEQVEALMDQKIADYAKN	KALAE	LQGLQNNFE		
	150	160	170	180	190
CRY3C:	DYVSALDSWDKTPLTLRDGRSQGRIRELFSQAESHFRRSMPSFAVSGYEV				
CRY3BB2:	DYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRNSMPSFAVSKFEV				
CRY3BB:	DYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRNSMPSFAVSKFEV				
CRY3BA:	DYVNALDSWKKAPVNLRSRRSQDRIRELFSQAESHFRNSMPSFAVSKFEV				
CRY3A:	DYVSALSSWQKNPVSSRNPHSQGRIRELFSQAESHFRNSMPSFAISGYEV				

FIG. 17A

	200	210	220	230	240
CRY3C:	LFLPTYAQAANTHLLLLKDAQIYGT	DWGYSTDDLNEFHTKQKDLTIEYTN			
CRY3BB2:	LFLPTYAQAANTHLLLLKDAQVFG	EEWGYSSDVAEFYHRQLKLTQQYTD			
CRY3BB:	LFLPTYAQAANTHLLLLKDAQVFG	EEWGYSSDVAEFYHRQLKLTQQYTD			
CRY3BA:	LFLPTYAQAANTHLLLLKDAQVFG	EEWGYSSDIAEFYQRQLKLTQQYTD			
CRY3A:	<u>LFLTTYAQAANTHLLKDAQIYGE</u>	<u>EWGYEKEDIAEFYKRQLKLTQEYTD</u>			

	250	260	270	280	290
CRY3C:	HCAKWKAGLDKLRGSTYEEWVKFN	RNRREMTLTVLDLITLFP	LYDVRTY		
CRY3BB2:	HCVNWYNVGLNGLRGSTYDAWVK	FNRRREMTLTVLDLIVLFP	PFYDVR	LY	
CRY3BB:	HCVNWYNVGLNGLRGSTYDAWVK	FNRRREMTLTVLDLIVLFP	PFYDIR	LY	
CRY3BA:	HCVNWYNVGLNGLRGSTYDAWVK	FNRRREMTLTVLDLIVLFP	PFYDVR	LY	
CRY3A:	<u>HCVKWYNVGLDKLRGSSYESW</u>	<u>VNFNRREMTLTVLDLIALFP</u>	<u>LYDVR</u>	<u>LY</u>	

	300	310	320	330	340
CRY3C:	TKGVKTELTRDVLTDPIVAVNNM	NGYGTTF	SN	NIENYIRKPHLFDYL	HAIQ
CRY3BB2:	SKGVKTELTRDIFTDPIFSLNTL	QEYGPTFL	SIENSIRKPHLFDYL	Q	LGIE
CRY3BB:	SKGVKTELTRDIFTDPIFSLNTL	QEYGPTFL	SIENSIRKPHLFDYL	Q	LGIE
CRY3BA:	SKGVKTELTRDIFTDPIFTL	NALQEYGP	TSS	NIENSIRKPHLFDYL	RGIE
CRY3A:	PKEVKTELTRDVLTDPIVGVNN	LRGYGTTF	<u>SN</u>	<u>NIENYIRKPHLFDYL</u>	<u>HRIQ</u>
	+++++				+++

	350	360	370	380	390
CRY3C:	FHSRLQPGYFGTDSFNYWSGNY	VSTRSSIGSDEIIRSPFYGNKST	LDVQN		
CRY3BB2:	FHTRLQPGYSGKDSFNYWSGNY	VETRPSIGSSKITSPFYGDKSTEP	VQK		
CRY3BB:	FHTRLQPGYFGKDSFNYWSGNY	VETRPSIGSSKITSPFYGDKSTEP	VQK		
CRY3BA:	FHTRLRPGYSGKDSFNYWSGNY	VETRPSIGSNDITSPFYGDKSIE	PIQK		
CRY3A:	FHTRFQPGYYGNDSFNYWSGNY	VSTRPSIGSNDIITSPFYGNKSSE	PVQN		
	+++++	+++++	+++++	+++++	+++

	400	410	420	430
CRY3C:	LEFNGEKVFRAVANGNLAVWPVGT	GGTKIHSGVTKVQFSQYNDRKDE	VRT	
CRY3BB2:	LSFDGQKVYRTIANTDVAAPNG---	KIYFGVTKVDFSQYDDQKNETST		
CRY3BB:	LSFDGQKVYRTIANTDVAAPNG---	KVYLGVT	KVDFSQYDDQKNETST	
CRY3BA:	LSFDGQKVYRTIANTDIAAFPDG---	KIYFGVTKVDFSQYDDQKNETST		
CRY3A:	LEFNGEKVYRAVANTNLAVWPSA---	VYSGVT	KVEFSQYNDQTDEAST	
	+++	+++++	++++	+++++

FIG. 17B

Annotated Marked-Up Drawings

	440	450	460	470	480
CRY3C:	QTYDSKRNVGGIV-FDSIDQLPPITTDSELEKAYSHQLNYVRCFLLQGGR				
CRY3BB2:	QTYDSKRNNGHVGAQDSIDQLPPETTDEPLEKAYSHQLNYAECFLMQDRR				
CRY3BB:	QTYDSKRNNGHVSAQDSIDQLPPETTDEPLEKAYSHQLNYAECFLMQDRR				
CRY3BA:	QTYDSKRYNGYLGAQDSIDQLPPETTDEPLEKAYSHQLNYAECFLMQDRR				
CRY3A:	QTYDSKRNVGAVS-WDSIDQLPPETTDEPLEKGYSHQLNYVMCFLMQGSR				
	++++	+++++			+++++++
	490	500	510	520	530
CRY3C:	GIIPVFTWTHKSVDFYNTLDSEKITQIPFVKAFILVNSTSVVAGPGFTGG				
CRY3BB2:	GTIPFFTWTTHRSVDFNTIDAEDITQLPVVKAYALSSGASIIIEGPGFTGG				
CRY3BB:	GTIPFFTWTTHRSVDFNTIDAEDITQLPVVKAYALSSGASIIIEGPGFTGG				
CRY3BA:	GTIPFFTWTTHRSVDFNTIDAEDITQLPVVKAYALSSGASIIIEGPGFTGG				
CRY3A:	GTIPVLTWTHKSVDFNMDSSKITQLPLVKAYKLQSGASVVAGPRFTGG				
	+++++++	+++++	++++		+++++++
	540	550	560	570	580
CRY3C:	DII-KCT-NGSGLTLYVTPAPDLTYSKTYKIRIRYASTSQVRFGIDLGSY				
CRY3BB2:	NLLFLKESSNSIAKFKVTL-NSAALLQRYRVRIRYASTTNLRLFVQNSNN				
CRY3BB:	NLLFLKESSNSIAKFKVTL-NSAALLQRYRVRIRYASTTNLRLFVQNSNN				
CRY3BA:	NLLFLKESSNSIAKFKVTL-NSAALLQRYRVRIRYASTTNLRLFVQNSNN				
CRY3A:	DII-QCTENGSAATYVTPD--VSYSQKYRARIHYASTSQITFTLSLDGA				
	+++++++	+++++++	+++++++		+++++++
	590	600	610	620	630
CRY3C:	THSISYFDKTMKGNLTLYNSFNLSSVSRPIEISG-GNKIGVSVGGIGSG				
CRY3BB2:	DFIVIIYINKTMNIDDDLTQTFDLATTNSNMGFSGDTNELIIGAESFVSN				
CRY3BB:	DFLVIYINKTMNKDDDLTYQTFDLATTNSNMGFSGDKNELIIGAESFVSN				
CRY3BA:	DFLVIYINKTMNIDGDLTYQTFDFATSNSNMGFSGDTNDFIIGAESFVSN				
CRY3A:	PFNQYYFDKTINKGDTLYNSFNLASFSTPFELSG--NNLQIGVTGLSAG				
	+++++++		+++++++	++++	+++++++
	640	650			
CRY3C:	DEVYIDKIEFIPMD (SEQ ID No:109)				
CRY3BB2:	EKIYIDKIEFIPVQL (SEQ ID No:110)				
CRY3BB:	EKIYIDKIEFIPVQL (SEQ ID No:111)				
CRY3BA:	EKIYIDKIEFIPVQ (SEQ ID No:112)				
CRY3A:	DKVYIDKIEFIPVN (SEQ ID No:113)				
	+++++++				

FIG. 17C